

UK NEQAS for H&I Scheme 2B - Crossmatching by Flow Cytometry

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 15TH SEPTEMBER 2015

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A-, B8, B57; Cw6, Cw7; DR7, DR17; DQ2, DQ9

Summary of Results											
T-cells					B-cells						
Total tested	43	46	41	47	40	42	41	42			
Positive	36	1	17	4	33	1	34	40			
Negative	7	45	24	43	7	41	7	2			
NT/Equivocal	7	4	9	3	7	5	6	5			
% Positive	83.7%	2.2%	41.5%	8.5%	82.5%	2.4%	82.9%	95.2%			
% Negative	16.3%	97.8%	58.5%	91.5%	17.5%	97.6%	17.1%	4.8%			
Consensus	Positive	Negative	Not Assessed	Negative	Positive	Negative	Positive	Positive			
HLA Antibody Specificity (Defined By CDC)	A3, A11, DR7	DR1	DR3	DR7, DQ2	A3, A11, DR7	DR1	DR3	DR7, DQ2			
T-cells					B-cells						
Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	Positive	Equivocal	Equivocal	Negative	Positive	Positive	Positive	Positive	21-Sep	21-Sep	
114	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
115	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
116	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
117	Equivocal	Negative	Negative	Negative	Positive	Negative	Positive	Positive	17-Sep	17-Sep	
118	Positive	Positive	Positive	Positive	Negative	Negative	Negative	Negative	16-Sep	16-Sep	
119	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
120	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	17-Sep	18-Sep	
122	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
126	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
130	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
136	Positive	Negative	Negative	Negative					17-Sep	18-Sep	
138	Positive	Negative	Negative	Negative					16-Sep	16-Sep	
139	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	17-Sep	18-Sep	
142	Positive	Negative	Positive	Negative	Negative	Negative	Positive	Positive	16-Sep	17-Sep	
143	NT	NT	NT	NT					18-Sep	19-Sep	
144	Positive	Negative	Negative	Negative	Negative	Negative	Negative	Positive	17-Sep	18-Sep	
145	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
147	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	15-Sep	17-Sep	
154	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
157	Equivocal	Negative	Negative	Negative	Equivocal	Negative	Negative	Positive	16-Sep	16-Sep	
159	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
160	Positive	Negative	Negative	Negative	NT	NT	NT	NT	16-Sep	17-Sep	Low number of B-cells
163	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	17-Sep	17-Sep	
167	Positive	Negative	Equivocal	Negative	Positive	Negative	Positive	Positive	17-Sep	18-Sep	
169	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Negative	16-Sep	17-Sep	
174	NT	NT	NT	NT	NT	NT	NT	NT	28-Sep		Sampels delayed in transit
176	Positive	Negative	Positive	Negative	Negative	Negative	Negative	Positive	16-Sep	17-Sep	
186	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	17-Sep	17-Sep	
190	Equivocal	Negative	Equivocal	Negative	Equivocal	Negative	Positive	Positive	17-Sep	18-Sep	
191	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	16-Sep	16-Sep	
193	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
194	Positive	Negative	Equivocal	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
195	NT	NT	NT	NT							
201	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	Low number of B-cells
202	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Positive	16-Sep	16-Sep	
204	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
209	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
218	Positive	Negative	Negative	Negative	NT	NT	NT	NT	18-Sep	21-Sep	Low B-cell count and viability
220	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	17-Sep	
227	Positive	Negative	Positive	Negative	NT	NT	NT	NT	16-Sep	16-Sep	Technical failure
235	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
238	Positive	Negative	Negative	Negative	Positive	Negative	Equivocal	Positive	16-Sep	17-Sep	Low number of B-cells
245	Positive	Negative	Equivocal	Negative	Positive	Negative	Positive	Positive	17-Sep	18-Sep	
246	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	
252	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	17-Sep	17-Sep	
262	Equivocal	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	Low number of cells
271	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	17-Sep	17-Sep	
283	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	16-Sep	16-Sep	
284	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Positive	16-Sep	16-Sep	

UK NEQAS for H&I Scheme 2B - Crossmatching by Flow Cytometry

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 15TH SEPTEMBER 2015

Lab No.	Serum 1 cytometer reading	Serum 2 cytometer reading	Serum 3 cytometer reading	Serum 4 cytometer reading	Negative control (local)	Positive control (local)	Strong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units	FCXM NIBSC negative control used?	Viability (%)
112	0.944			0.420	0.373	2.86			Ratio >1.5	Median log channel	No	99
114	378	182	279	181	213	367			263 (213+50)		No	
115	401	226	286	242	250	393			>40	Median linear channel shifts	Yes	
116	0.87	0.17	0.41	0.17	0.14	45.1			Ratio >1.7	Median log channel	No	
117		5.71	6.28	5.76	5.75	39.85			Ratio >1.3	Median log channel	Yes	
118	211	161	182	185	134	881			156 (134+22)	Median linear channel	Yes	90
119	0.803	0.205	0.377	0.269	0.183	3.24			Ratio: Pos >1.289 B-line (1.289-1.45)	MnIX	No	90
120	1.79	1.07	1.37	1.07	78	923.5			Ratio >1.6	Median	No	100
122	43.5	11	23.5	12.5	11		77	24	3SD	Geomean linear values	Yes	98
126	424	265	340.5	261	245.5	714			>55	Median linear channel	No	90
130	268	155	219	168	150	316			>40		No	
136	6.4	1.3	2.1	1.4	1.3	239			NR>200	Mean channel	No	99
138	0.26	0.04	0.17	0.11	0	0.99			>0.20	D value Kolmogorov-Smirnoff	No	
139	1.17	0.19	0.472	0.243	0.139	2.49			≥1.5 of neg median log channel	Median log channel	No	
142	302	172	258	177	174	7595			189.4 median log channel +3SD	Median log channel	No	90
143	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	60
144	MFI				1284							
145	Ratio 1.81	0.84	1.04	1.03	1	3.18			1.7		No	
147	0.659	0.424	0.424	0.417	0.345	54.6			(med log ch test/med log ch neg)>mean+2SD	Median log channel	No	96
154	162	98	108	87	102	485			>40 linear channel shift	Median linear channel	No	100
157	256	78	126	72	74.3	1958			Median > 150% control and shape of the curve	MFI	No	
159		115	132	125	119	257			134 (Neg+15)	Median linear channel	No	80
160	285	164	218	166	153	408			193 (40 linear channel shift)	Mean linear channel	No	95
163	48	9.8	22.3	10.3	9.9	296			>18 (Pos+2SD)	Mean linear channel	No	
167	15.5	1.2	6.9	1.2	1	13.2			2.3	Geomean log channel	Yes	95
169	382	189	228	184	188	9242			2SD		No	98
174	MLC 47.03	8.17	10.44	10.02	17.53	495			Positive NR≥180	Mean log channel	No	94
176	NR 268	47	60	57	2827				NT	NT	NT	
186	SI 0.90	-0.01	0.61	0.01	0	1.47	NT	NT	SI ≥0.5		No	
190	MESF 4988	861	2766	884	873	16279					No	
191	2.47	0.452	0.806	0.477	0.42	38.4			1.5 x the local negative	MFI	No	99
193	103.8	52.2	105.3	85.5	73.1	88.8			Ratio sample/Neg >1.5		No	77
194	19	5	4	0.55	0	120			MFI >30	MFI	Yes	100
195	23.13	2.62	7.97	3.11	2.28	167.09			Neg control mean x2.5	Geometric mean linear channel	No	
201	2	0.4	0.7	0.5	0.4	11			R >0.7	Median log channel	No	98
202	0.83	0.41	0.48	0.52	0.41	36			Ratio (3/NC) ≥2	X-mean	No	94
204	1	0.4	2.3	1.1	0.3	99.9			5% above the local neg control	Linear scale		
209	1.56	0.31	0.62	0.34	0.34	11.7			0.5 (1.5 x local neg)	Mean log channel	No	
218	3.6	1.1	2.4	1.2	282	1008			Ratio >1.6	Geomean log channel	Yes	
220	294	146	97	179	191	465			191 x 1.2 = 229.2	MFI	No	Low
222	121	86	87	89	83	293			40 linear channel shift	Median linear channels	No	95
227	3.53	0.897	2.8	1.07	0.7	4.27			1.4 (2x local neg control)	Mean log channel	No	98
235	2.57	1.96	2.09	30.78	2.09	207.21			±2SD	Median log channel	No	85
238	2563	1171	1556	1147	1309	27124			MESF sample/MESF neg control		No	
245	9.8	1.3	6.3	0.3	5.7	17.5			7 linear channel shift	Linear channel shift	Yes	100
246	33%	1.4%	1.2%	1.3%	9.9%	38.3%			30%		Yes	92
252	1.88	1.04	1.26	1.80	42	151			XM median channel/Neg median channel	Median channel ratio	No	65
262					751	16407			Ratio sample/Neg >2	Median log channel	No	96
271	334	146	241	166	142	425			Lysis >12%			
283	0.604	0.314	0.4365	0.354					64 channel shift	Median log channel	No	98
284	70	57	64	60	60	393			>2 channel shift	Median channel shift	No	
									Sample serum/Neg control: Ratio >1.2	Median log channel	No	

UK NEQAS for H&I Scheme 2B - Crossmatching by Flow Cytometry

B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 15TH SEPTEMBER 2015

Lab No.	Serum 1 cytometer reading	Serum 2 cytometer reading	Serum 3 cytometer reading	Serum 4 cytometer reading	Negative control (local)	Positive control (local)	Strong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units	FCXM NIBSC negative control used?	Viability (%)
112	4.6	1.84	4.4	9.88	0.69	6.47			Ratio >1.5	Median log channel	No	99
114	594	477	562	654	449	600			509 (449+60)		No	
115	636	411	603	733	444	558			>60	Median linear channel shifts	Yes	
116	6.16	1.28	5.43	12.4	1.51	49.8			Ratio >1.7	Median log channel	No	
117	50.65	14.03	45.32	72.87	14.20	182.9			Ratio >1.3	Median log channel	Yes	
118	294	288	288	307	285	532			310.5 (285+25.5)	Median linear channel	Yes	90
119	12.25	3.77	9.9	23.05	3.38	8.4			Ratio: Pos >1.7 B-line (1.5-1.7)	MnIX	No	90
120	2.32	1.4	2.54	5.76	535.5	3050			Ratio >2	Median	No	100
122	361	134.5	342	854	88		550	184	3SD	Geomean linear values	Yes	98
126	656.5	459.5	630	728.5	453	887			>80	Median linear channel	No	90
130	452	345	465	532	314	530			>80		No	
139	12	1.43	10.1	32.1	1.125	20.1			≥2 of neg median log channel	Median log channel	No	
142	3024	2656	4388	4380	2917	21085			4044 median log channel +3SD	Median log channel	No	90
144	MFI				9260							
	Ratio 1.32	0.6	1.19	2.61	1	1.88			2.5		No	
145	3.42	1.19	2.76	8.48	1.68	90.3			(med log ch test/med log ch neg)>mean+2SD	Median log channel	No	96
147	342	204	285	323	224	641			>40 linear channel shift	Median linear channel	No	100
154	1619	394	1318	4032	199	5021			Median > 150% control and shape of the curve	MFI	No	
157		195	235	313	202	446			237 (Neg+35)	Median linear channel	No	80
159	508	368	478	572	333	684			393 (60 linear channel shift)	Mean linear channel	No	95
160	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
163	3.6	1.2	3.3	5.5	1	3			1.7	Geomean log channel	Yes	95
167	1967	864	1868	3025	800	17512			2SD		No	98
169	MLC 66.28	29.67	30.10	55.37	32.75	413						
	NR 268	47	60	57	2827				Positive NR≥200	Mean log channel	No	94
174	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
176	SI 0.14	-0.20	0.15	0.41	0	0.31			SI ≥0.3			
	MESF 35979	14581	35696	60970	25308	59707					No	
186	7.01	1.44	3.08	8.42	1.83	53.5			2 x the local negative	MFI	No	99
190	386	131.77	496	721.5	151	635			Ratio sample/Neg >2.5		No	77
191	90	47	60	130	0	357			MFI >30	MFI	Yes	100
193	275.09	76.6	241.57	517.86	60.51	842.75			Neg control mean x2.5	Geometric mean linear channel	No	
194	13	6	10	30	4	135			R >1	Median log channel	No	98
195												
201	5.86	1.11	3.98	18.5	1.05	75.4			Ratio (3/NC) ≥2.5	X-mean	No	94
202	7.2	2.2	10.2	22.6	0.8	100			88% above the local neg control	Linear scale		
204	14.8	4.36	13.5	25.2	4.95	74.7			9.89 (2 x local neg)	Mean log channel	No	
209	4.5	1.4	4.3	9	1516	4652			Ratio >1.9	Geomean log channel	Yes	
218	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	Low
220	251	176	241	285	200	371			40 linear channel shift	Median linear channels	No	95
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	38.89	15.82	28.06	63.78	6.32	2308.24			4SD	Median log channel	No	85
238	20766	7009	16996	35038	8755	91869			MESF sample/MESF neg control		No	
245	39.7	9.2	41.7	79.2	23.3	60			15 linear channel shift	Linear channel shift	Yes	100
246	84.1%	27.1%	85.9%	87.9%	23.5%	59.4%			30%		Yes	92
252	5.25	1.13	4.28	10.01	66	406			XM median channel/Neg median channel	Median channel ratio	No	65
262	Ratio 2.76		2.63	5.07	1922	70168			Ratio sample/Neg >2	Median log channel		
	Lysis 38.5%		34%	75%					Lysis 12%		No	96
271	505	236	501	613	255	569			90 channel shift	Median log channel	No	98
283	-6630	-2428	-19208	47.15					>10 channel shift	Median channel shift	No	
284	84	55	71	148	57	1250			Sample serum/Neg control: Ratio >1.2	Median log channel	No	